In the Claims:

Please cancel claims 1-53 without prejudice. Please add new claims 54-79 as indicated below.

Claims 1-53. (Canceled without prejudice).

54. (New) A polymer comprising the following structure:

wherein:

POLY is a water-soluble, substantially non-immunogenic polymer;

Y is a hydrolytically stable linkage;

W is a first tethering group;

W' is a second tethering group;

Z is a first reactive moiety; and

Z' is a second reactive moiety.

- 55. (New) The polymer of claim 54, wherein the first reactive moiety, Z, and the second reactive moiety, Z', are different.
- 56. (New) The polymer of claim 54, wherein the first reactive moiety, Z, and the second reactive moiety, Z', are the same.
- 57. (New) The polymer of claim 56, wherein the first reactive moiety, Z, and the second reactive moiety, Z', are selected from the group consisting of active esters, active carbonates, aldehydes, isocyanates, isothiocyanates, epoxides, alcohols, maleimides, vinylsulfones, hydrazides, dithiopyridines, and iodoacetamides.

58. (New) The polymer of claim 57, comprising the following structure:

wherein the first reactive moiety, Z, and the second reactive moiety, Z', are each maleimide, and each of POLY, Y, W and W' is as previously above

- 59. (New) The polymer of claim 54, wherein the first tethering group, W, and the second tethering group, W', are each independently selected from the group of CH₂, alkyl chains, ether chains, amide chains, and combinations thereof.
- 60. (New) The polymer of claim 54, wherein the hydrolytically stable linkage, Y, is selected from the group consisting of -O-, -S-, -O₂C-NH-, -OCH₂CH₂-, -OCH₂CH₂CONH-, and -CO-NH-.
 - 61. (New) The polymer of claim 59, wherein Y is -O-C(O)-NH- or -C(O)-NH-.
- 62. (New) The polymer of claim 54, wherein the water-soluble, substantially non-immunogenic polymer, POLY, is a poly(ethylene glycol).
- 63. (New) The polymer of claim 62, wherein the poly(ethylene glycol) comprises a capping group.
- 64. (New) The polymer of claim 62, wherein the poly(ethylene glycol) is a linear poly(ethylene glycol).

65. (New) The polymer of claim 64, wherein the linear poly(ethylene glycol) comprises the following structure:

wherein (n) is from about 8 to about 4000.

- 66. (New) The polymer of claim 65 wherein the poly(ethylene glycol) has a molecular weight of from about 200 Da to about 100,000 Da.
 - 67. (New) The polymer of claim 65, comprising the following structure:

$${\rm H_{3}CO-CH_{2}CH_{2}-O-(CH_{2}CH_{2}O)_{n}-CH_{2}CH_{2}-O-C-N-CH} \\ \\ W'-N \\ W'-N \\ \\ W'$$

wherein (n) is from about 8 to about 4000 and each of W and W' is as previously defined.

- 68. (New) The polymer of claim 67, wherein the poly(ethylene glycol) has a molecular weight of about 5,000 Da.
- 69. (New) The polymer of claim 67, wherein the poly(ethylene glycol) has a molecular weight of about 20,000 Da.
 - 70. (New) The polymer of claim 65, comprising the following structure:

$$H_3CO-CH_2CH_2-O-(CH_2CH_2O)_n-CH_2CH_2-C-N-CH$$

wherein (n) is from about 8 to about 4000 and each of W and W' is as previously defined.

71. (New) The polymer of claim 70, wherein the poly(ethylene glycol) has a molecular weight of about 5,000 Da.

72. (New) The polymer of claim 70, wherein the poly(ethylene glycol) has a molecular weight of about 20,000 Da.

73. (New) The polymer of claim 65, comprising the following structure:

$$HO-CH_2CH_2-O-(CH_2CH_2O)_n-CH_2CH_2-O-C-N-CH$$

wherein (n) is from about 8 to about 4000 and each of W and W' is as previously defined.

74. (New) The polymer of claim 65, comprising the following structure:

wherein (n) is from about 8 to about 4000 and each of W and W' is as previously defined.

75. (New) The polymer of claim 62, wherein the poly(ethylene glycol) is a branched poly(ethylene glycol).

76. (New) The polymer of claim 75, wherein the branched poly(ethylene glycol) is derived from the lysine.

77. (New) The polymer of claim 76, comprising the following structure

$$\begin{array}{c} H_{3}CO-CH_{2}CH_{2}-O-(CH_{2}CH_{2}O)_{n}-CH_{2}CH_{2}-O-C-N\\ \\ CH_{2}\\ CH_{2}\\ CH_{2}\\ CH_{2}\\ CH_{2}O\\ H\\ CH-C-N-CH\\ \end{array}$$

wherein each (n) is independently from about 8 to about 4000 and each of W and W' is as previously defined.

78. (New) The polymer of claim 77, wherein each poly(ethylene glycol) has a molecular weight of about 5,000 Da.

79. (New) The polymer of claim 77, wherein each poly(ethylene glycol) has a molecular weight of about 20,000 Da.

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